Author’s response to reviews

Title: Injuries at a Canadian National Taekwondo Championships

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The followings are the point by point respond to the reviewer's comments:
Reviewer's report
Injuries at a Canadian National Taekwondo Championships Title:
1 28 April 2004 Version: Date:
david burke Reviewer:
Reviewer's report:
General
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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Most problematic in this manuscript is the lack of a definition of an injury. The methods section suggests that an athlete reported the injuries which then are reviewed and documented by the medical team. I therefore do not know what is the working definition of an injury. Most surveys of athletic injuries define an injury as an event which causes the participant to discontinue participation. This does not seem to be the case here, and therefore is confusing and misleading. This must be in the paper.

- An injury was defined as a trauma, damage or wound during the competition that caused the athlete to seek medical help, not necessarily stopping the athlete from further competition.

Second if there was an attempt to review all contacts with medical staff (the apparent working definition) then the data concerning severity might be helpful. An example is the use of the term concussion. There is no discussion of what severity were the concussions and was the means by which this was determined. Without this it is not clear that any guidelines were adhered to.

- Concussion was defined and classified based on Colorado Concussion Classification with reference indicated in the Method section. Unfortunately, the explanation of this classification that I had originally had in my initial manuscript was somehow deleted from the manuscript submitted. I have included it in the revised version. There was one third degree and two first degree concussions based on Colorado Classification.

Another definition among the injury definitions is that of "joint dysfunction" In the discussion there is a definition that is discussed which notes that "motion radiography investigation" is useful when using this diagnosis. It is clear that there was no use of radiography here. It speaks again to the confusion as to what were counted as injuries.

- The use of motion radiography is useful but not necessary for this diagnosis.

The second major issue is the lack of a discussion of the rules of this particular organization. Was
contact allowed/encouraged? Where was contact allowed and did this differ for different ranks? As there are several governing bodies for Tae Kwon Do this is a critical issue. There is some discussion of the recent rule changes in the conclusion section as a reason for the "injury rates". This serves to highlight the lack of discussion of the current and the past rules.

-The rules and regulation with regards to this Championships were that of WTF Taekwondo, World Taekwondo Federation, which is the style allowed in Olympic Games. The Change of regulation happened in 2003. This study pertains to 1997 Canadian Adult National Championships. All athletes were sixteen years of age and older and held black belt first degree as minimum requirement to compete. Rules and regulation were as follows: Punch to the front of the torso in the area covered and protected by chest protector worn by athletes. No punches allowed to the head or other part of the body.

Kicks were allowed to the torso covered by the chest protector and head. Regardless of the area of contact at the time of this competition only one point were given by the referees for successful blows. One could win the match by means of knock out, therefore, contact were encouraged. The change of rules were introduced in 2003 and included granting two points for head shots and an additional point for eight count knock out.

Another issue is the separation of "injuries". If a contusion a laceration and epistaxis all occur with the same blow to the face, were there really three injuries? By the NCAA definition of injury, unless the individual ceased competition there was no injury at all. This seems a worrisome issue.

-This is great question. We have considered each as a separate injury.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

There is no discussion of injury by rank. This would be helpful to compare with others studies.

-Unfortunately, the rank was not recorded. However, all participants held first degree black belt as a minimum requirement to compete.

Reviewer's report

Injuries at a Canadian National Taekwondo Championships Title:
18 April 2004 Version: Date:
J. David J Casssidy Reviewer:
Reviewer's report:
General
The manuscript is well written and covers an interesting and important topic.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Did the participants consent to be included in this study and was there an ethics review of the study protocol?

-This study was a retrospective study. Initially, it was not intended to be a study. However, the injuries were recorded as was explained as it was mandatory to record all injuries cared for by the health care team. The data is the possession of MK first author and was later used for this study. MK entered all the data, therefore, keeping the identity of the athletes confidential.

The use of statistical testing is not warranted or useful in this paper. There has not been any a-priori consideration of sample size or power. In this study the number of injuries is small and the difference between males and females is obvious without a statistical test (35 vs. 5 is a seven-fold difference!).
This is a very good point. However, we thought that it would not hurt to have the statistic done as well.

The use of rates (injuries/A-E) can be misleading without putting confidence intervals around them. These rates are based on small numbers and it would be more informative to give the actual numbers in the text along with the rates and their 95% confidence intervals. That way, the reader can see that some rates are based on a small number of injuries. This issue becomes important in the discussion, where the authors compare rates from various studies without taking into account the precision of these estimates.

- This is a very good point and I have included the actual numbers in the tables. We have indicated in the discussion that our sample size was small.

The authors should give some details as to how they defined the various injuries in the study. There is anatomical location, but what defined it as an injury? For example, did the injury stop the athlete from further competition?

- An injury was defined as a trauma, damage or wound during the competition that caused the athlete to seek medical help, not necessarily stopping the athlete from further competition.

How were strains and sprains differentiated?

- These were differentiated via clinical examination.

How was concussion defined?

- Concussion was defined and classified based on Colorado Concussion Cassification with reference indicated in the Method section. Unfortunately, the explanation of this classification that I had originally had in my initial manuscript was somehow deleted from the manuscript submitted. I have included it in the revised version.

Also, the authors present findings on "joint dysfunction". This is controversial because joint dysfunction has never been validated as a diagnostic condition. I would suggest that the authors either drop it from the paper, or admit that it is a term used almost exclusively by chiropractors and physical therapists and has not been validated as a diagnostic condition.

I agree that this term is controversial, however, I have provided more than eight references published in peer reviewed journals with regards to joint Dysfunction. The term Joint Dysfunction, although used regularly by chiropractors and physical therapists, has also been used by biomechanists and medical doctors some of which are the authors of the cited references. I have also included this comment in revised version.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

In the abstract, under results, second sentence, "The overall number of injuries was 62.0/1,000 A-E" should be changed to the overall "rate" was...

- That is a great comment. I have changed it in the revised version.